REMARKS

Claims 1-37 are pending in this application. Claims 5, 12-17, and 22-31 are withdrawn from consideration, Claims 1-4, 6-11, 18-21, and 32-37 have been examined. Claims 1, 2, 4, 6-9, 18-21, 32, and 34-37 stand rejected. The Examiner's indication that Claims 3, 10, 11, and 33 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims is noted with appreciation. Reconsideration and allowance of Claims 1-4, 6-11, 18-21, and 32-37 is respectfully requested.

The Rejection of Claims Under 35 U.S.C. § 102(e)(2)

The Examiner has rejected Claims 1, 2, 4, 6-9, 18-21, 32, and 34-37 under 35 U.S.C. § 102(e)(2) as being anticipated by U.S. Patent No. 6,368,794 (Daniel et al.).

Applicant respectfully points out that Daniel et al. neither discloses nor suggests applicant's claimed invention for the following reasons. Claim 1, from which Claims 2, 3, 6-9, and 18-21 depend, and Claims 32, from which Claims 34-37 depend, are directed to methods for discovering compounds with expression profile-altering activity. The method of Claim 1 comprises four steps:

(a) determining a first expression profile of a set of representative molecules in a first biological sample;

(b) determining a second expression profile of the set of molecules in a second biological sample, wherein the second biological sample differs from the first biological sample by a known parameter;

(c) determining a third expression profile of the set of molecules in the second biological sample after treatment of the second biological sample with at least one analyte of previously uncharacterized specific pharmacological activity; and

(d) comparing the third expression profile with the first and second expression profiles to identify one or more analytes that induces a third expression profile that is more similar to the first expression profile than is the second expression profile.

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

Similarly, the method of Claim 32 comprises four steps:

(a) determining a first expression profile of a set of representative molecules in a first biological sample;

(b) determining a second expression profile of the set of molecules in a second biological sample, wherein the second biological sample differs from the first biological sample by a drug treatment;

(c) determining a third expression profile of the set of molecules in a third biological sample after treatment of the third biological sample with at least one analyte of previously uncharacterized specific pharmacological activity; and

(d) comparing the third expression profile with the first and second expression profiles to identify one or more analytes that induces a third expression profile that is more similar to the first expression profile than is the second expression profile.

As shown in two figures comparing the methods disclosed in Daniel et al. with an embodiment of the claimed invention (enclosed herewith as Attachment A), Daniel et al. neither discloses nor suggests determining an expression profile in a biological sample after treating the biological sample with at least one analyte of previously uncharacterized specific pharmacological activity, as recited in step (c) of Claims 1 and 32. Moreover, Daniel et al. does not disclose or suggest comparing this expression profile with other expression profiles in order to identify analytes that induce an expression profile that is more similar to a specific expression profile, as recited in step (d) of Claims 1 and 32. For these reasons, Daniel et al. does not disclose or in any way suggest the invention of Claims 1-4, 6-11, and 18-31. Because the cited reference fails to exactly describe the claimed invention, the reference is not anticipatory. Withdrawal of the rejection is respectfully requested.

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

CONCLUSION

In view of the foregoing amendments and remarks, Claims 1-4, 6-11, 18-21, and 32-37 are believed to be in condition for allowance. If any issues remain that can be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone applicant's attorney at 206.695.1783.

Respectfully submitted,

CHRISTENSEN O'CONNOR
JOHNSON KINDNESS[PLLC]

Karen Blöchlinger, Ph.D.
Registration No. 41,395
Direct Dial No. 206.695.1783

I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid and addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the below date.

Date: 7/8/04 Carole Julyan

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LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS[PLLC]
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

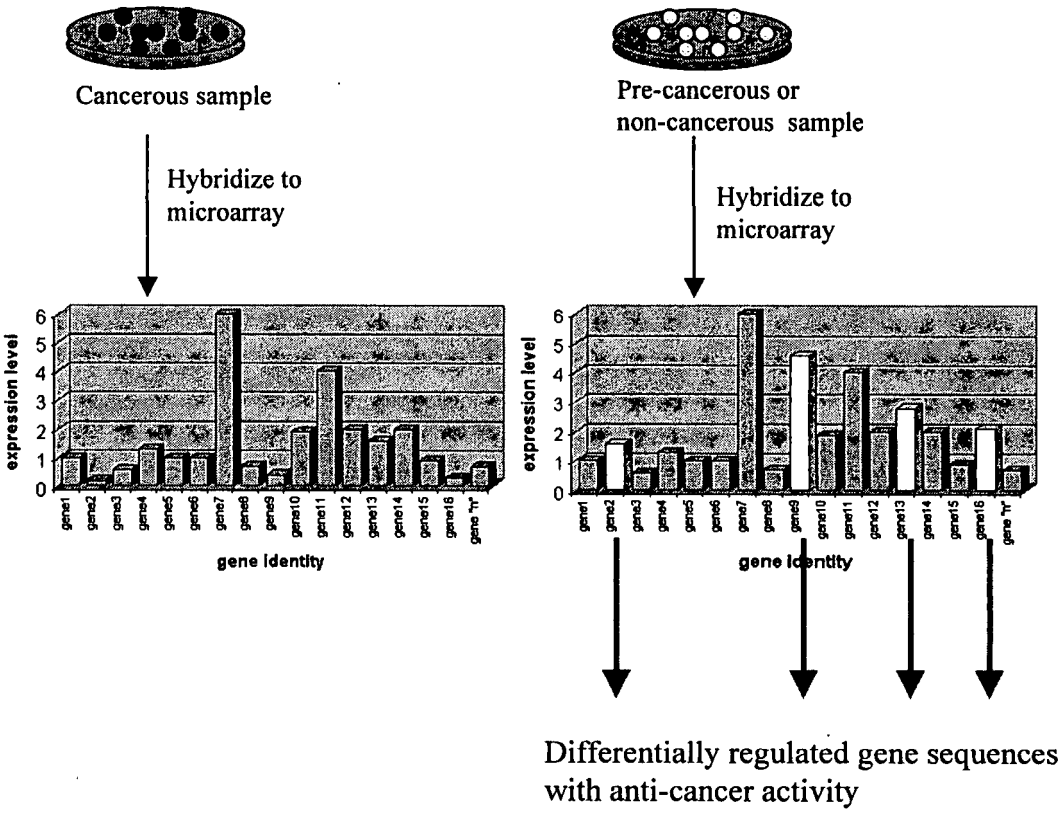
Patent 6,368,794

Steps

1. hybridize diseased and non-diseased samples to microarrays

2. identify genes differentially expressed between sample types

3. select differentially expressed genes as drugs



Summary: A comparison of diseased and normal samples is used to find gene sequences that are useful as drugs

Gunther Invention – one embodiment

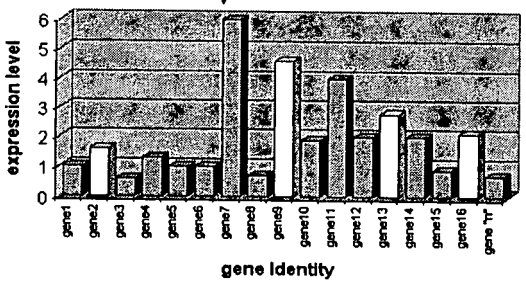
Steps

1. Treat cancerous sample with analyte of uncharacterized activity

Key difference: Daniels et al. does not describe or suggest this step

Analyte-treated cancerous sample

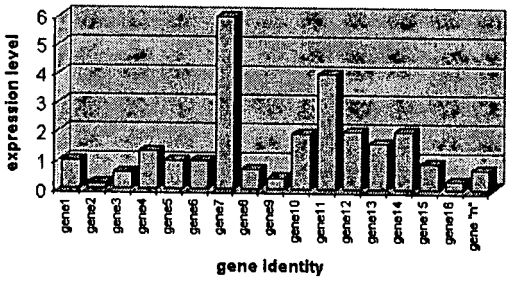
Hybridize to microarray

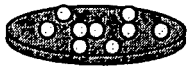


2. Hybridize analyte-treated cancerous, cancerous, and non-cancerous samples to microarrays

Cancerous sample

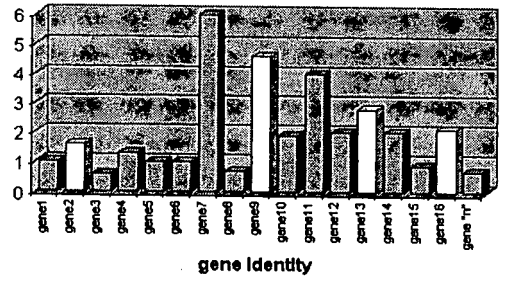
Hybridize to microarray





Non-cancerous sample

Hybridize to microarray



3. Compare profile of analyte-treated cancerous sample with profiles of cancerous and non-cancerous samples. Compounds that induce shift of cancer profile toward non-cancer profile are identified as having pharmacological activity

Summary: A comparison of microarrays from non-cancerous, cancerous, and analyte-treated cancerous samples is used to discover the pharmacological activity of analytes.